~~There is provided a wide-band amplifier having a flat amplification characteristic over a wide frequency bandwidth, being prevented from degrading due to parasitic capacitance, and being short in group delay time.~~

~~The~~ A wide-band amplifier includes a band-pass filter made of an LC parallel resonant circuit and an LCR series resonant circuit. Both the LC parallel resonant circuit and the LCR series resonant circuit are connected in parallel to a current amplifier device. ~~and provided in parallel as a load for a current output amplifier device.~~ The band-pass filter has a plurality of poles as well as zeros provided therebetween in the s-plane, where some of the zeros are situated at locations other than the s-plane origing to improve ~~thereby improving~~ a characteristic flatness in a passband. The output terminal of the amplifier device serves as an output terminal for the amplifier, so that the problem of group delay does not occur. A capacitance element between the output terminal of the amplifier and GND absorbs parasitic capacitance as part of constants to prevent ~~, thereby preventing~~ degradation of the frequency characteristic.